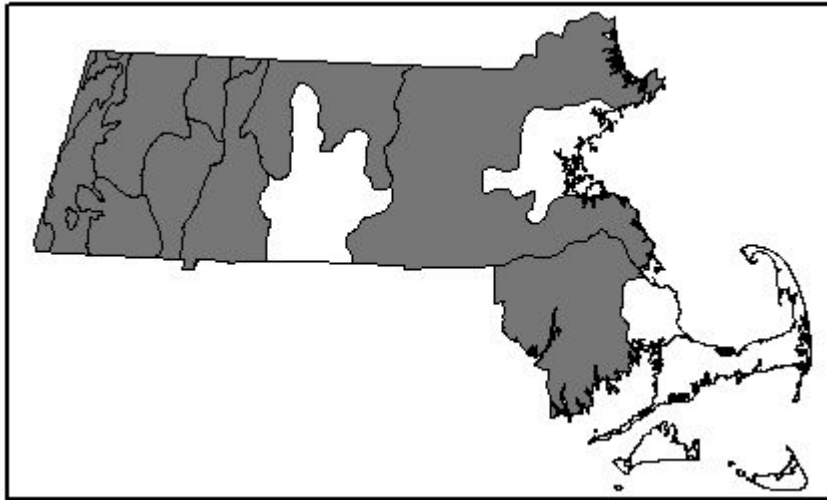


**Community Name:** RICH, MESIC FOREST COMMUNITY  
**Community Code:** CT1C2A0000  
**SRANK:** S3



**Concept:** A variant of the northern hardwood forest where sugar maple is usually dominant and there is a diverse herbaceous layer with abundant spring ephemerals in a moist, nutrient rich environment.

**Environmental Setting:** Rich, mesic forests are usually found on slopes or talus below calcareous bedrock or on level areas where calcareous or circumneutral bedrock is near the surface [areas of enrichment can also occur where bedrock or till are not particularly base rich, but near the location where downslope enrichment takes place]. In Massachusetts, they are restricted to low to moderate elevations below 2,400 ft. (about 650 m), and usually on north or east-facing, concave, middle to lower slopes that experience downslope movement of nutrients and organic matter. Rich refers to rich in nutrients, although they are also rich in species; and mesic is the moderate moisture regime. Soils are usually deep, with rapid decomposition of leaves and other plant litter quickly incorporated into the soil, so that there is rarely more than one year's accumulation of leaves on the forest floor.

**Vegetation Description:** Rich mesic forests are dominated by sugar maple (*Acer saccharum*), with white ash (*Fraxinus americana*), bitternut hickory (*Carya cordiformis*), elm species (*Ulmus* spp.), and basswood (*Tilia americana*) being other characteristic trees. Butternut (*Juglans cinerea*) usually grows in rich mesic forests but is infrequent. Hophornbeam (*Ostrya americana*) is common as a subcanopy tree. Although the shrub layer is usually sparse, alternate-leaved dogwood (*Cornus alternifolia*), leatherwood (*Dirca palustris*), or red-berried elderberry (*Sambucus racemosa* ssp. *pubens*) might be present. Typically spring ephemerals are abundant. Combinations of any several of the following species usually indicate a rich mesic community: bloodroot (*Sanguinaria canadensis*), maidenhair fern (*Adiantum pedatum*), blue cohosh (*Caulophyllum thalictroides*), sweet cicely (*Osmorhiza claytonii*), Dutchman's breeches (*Dicentra cucullaria*), squirrel corn (*Dicentra canadensis*), toothwort (*Dentaria diphylla*), wild leeks (*Allium tricoccum*), wild ginger (*Asarum canadense*), white baneberry (*Actaea pachypoda*), Goldie's fern (*Dryopteris goldiana*), and zigzag goldenrod (*Solidago flexicaulis*) as well as the state-listed species listed below. A semi-evergreen, fairly distinct sedge (*Carex plantaginea*) is a good indicator of the community that is visible throughout the year.

**Associations:**

**Habitat Values for Associated Fauna:** Most animals of rich, mesic forests are generalized deciduous forest species. Birds that often breed in rich, mesic forests include Wood Thrush (*Hylocichla mustelina*), Veery (*Catharus fuscescens*), Black-and-white Warbler (*Mniotilta varia*), Ovenbird (*Seiurus aurocapillus*), Louisiana Waterthrush (*S. motacilla*), Scarlet Tanager (*Piranga rubra*), and Barred Owls (*Strix varia*). Vernal pools in these forests may be breeding sites for blue spotted salamanders (*Ambystoma jeffersonianum*) and other mole salamanders (*Ambystoma* spp.), and spotted turtles (*Clemmys guttata*). Most small mammals of forests

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occur in rich mesic forests, including Southern flying squirrels (*Glaucomys volans*), grey squirrels (*Sciurus carolinensis*), woodland jumping mouse (*Napaeozapus insignis*), masked shrew (*Sorex cinereus*), and red-backed vole (*Clethrionomys gapperi*). Larger mammals include rich mesic forests as parts of their habitat.

## Associated Rare Plants:

ACER NIGRUM	BLACK MAPLE	SC
ADLUMIA FUNGOSA	CLIMBING FUMITORY	T
APLECTRUM HYEMALE	PUTTY-ROOT	E
CIMICIFUGA RACEMOSA	BLACK COHOSH	E
CORALLORRHIZA ODONTORHIZA	AUTUMN CORALROOT	SC
DIPLAZIUM PYCNOCARPON	GLADE FERN	- WL
HYDROPHYLLUM CANADENSE	BROAD WATERLEAF	E
MILIUM EFFUSUM	WOODLAND MILLET	T
RIBES LACUSTRE	BRISTLY BLACK CURRANT	SC
SANICULA CANADENSIS	CANADIAN SANICLE	T
SANICULA ODORATA	LONG-STYLED SANICLE	T

## Associated Rare Animals:

AMBYSTOMA JEFFERSONIANUM	JEFFERSON SALAMANDER	SC
AMBYSTOMA MACULATUM	SPOTTED SALAMANDER	- WL
CLEMMYS GUTTATA	SPOTTED TURTLE	SC
CLEMMYS INSCULPTA	WOOD TURTLE	SC
ELAPHE OBSOLETA	BLACK RAT SNAKE	E
HEMIDACTYLUM SCUTATUM	FOUR-TOED SALAMANDER	SC
PIERIS NAPI OLERACEA	MUSTARD WHITE	SC

## Examples with Public Access:

Green River Forest, Greenfield; Maple Hill WMA, West Stockbridge; South Mountain, Pittsfield; Mt. Toby, Sunderland and Leverett; The Hopper - Mt. Greylock State Reservation, Williamstown.

## Threats:

Invasive exotics do very well in the nutrient rich, mesic conditions associated with these forests. Fragmentation and isolation can be problems for the species of the community.

## Management Needs:

Control of exotics in exemplary sites.

## Synonyms

## USNVC/TNC:

Acer saccharum- Fraxinus americana- Tilia americana Forest Alliance -- Acer saccharum- Fraxinus americana- Juglans cinerea/ Staphylea trifolia Forest (Rich talus slope Forest) [CEGL006020]; Acer saccharum- Fraxinus americana- Tilia americana Forest Alliance -- Acer saccharum- Fraxinus spp.- Tilia americana/ Osmorhiza claytonii- Caulophyllum thalictroides Forest [CEGL005008].

## MA (old name):

SNE RICH MESIC FOREST (CIRCUMNEUTRAL TO BASIC).

## ME:

Cove forest Community.

## NH:

(Enriched) Rich mesic forest; Rich sugar maple- ash- oak- hickory forest.

## VT:

Mesic Northern Hardwoods.

## NY:

Maple - basswood rich mesic forest.

## CT:

Acer saccharum- Fraxinus americana/ Tilia americana forests -- Acer saccharum - Fraxinus americana / Asarum canadensis community.

## RI:

Part of: Beech - Maple Forest.

## Weatherbee:

Rich mesic forest.

## Author:

P. Swain

## Date:

10/23/00